

# A Dwarf - N Snow Whites

[English](#)

[Tiếng Việt](#)

Today RomanD3 wants to race his old bicycle to Do Son beach with two friends of his, on his way he thought out a problem named "A Dwarf - N Snow Whites":

On his hard way to Do Son beach, he races with N Snow White racing on N different bicycles, but none of them wants to go alone. Given that the  $i^{\text{th}}$  Snow White wants to be taken by the dwarf RomanD3 for  $T_i$  minute(s), then she can go alone for (only)  $D_i$  minute(s) (she will cry after that); RomanD3 wants to "escape" from them soon to go... by bus with the  $N+1^{\text{th}}$  Snow White on the bus (whom he likes), so he must take each Snow White exactly one time but not let any of them cry; then he needs at least one minute to go with his lady (in dream ;) ) .

Please help him to determine whether he can do or not.

## Input

- The first line contains number N.
- Next N line(s), the  $i^{\text{th}}$  line contains two numbers  $T_i, D_i$ .

## Output

- Print out -1 whether he can not "escape" from them or print out the order of serving them before he can jump on the bus ;))

## Example

**Input:**

```
2
2 11
11 30
```

**Output:**

```
2 1
```

## Limitations

- $n \leq 10^5$ .